XXI.—Notices of recent Ornithological Publications.

Baker on Indian Game-Birds.

[The Game-Birds of India, Burma and Ceylon. By E. C. Stuart Baker. Vol. i. Ducks and their Allies, pp. xvi-340; 30 col. pls., 2 black & white pls. Vol. ii. Snipe, Bustards and Sandgrouse, pp. xvi-328: 19 col. pls., 6 black & white pls.; 2 maps. London (The Bombay Natural History Society), 1921. 8vo.]

In 1908 the Bombay Natural History Society published in book form a series of articles, which had been appearing in their Journal, on "Indian Ducks and their Allies," by Mr. E. C. Stuart Baker.

Within a year or so the volume was out of print, and Mr. Baker and the Society have been well advised to bring out a new edition of this useful work, after thoroughly revising it and bringing it up to date. The title of the book has been changed from "Ducks and their Allies" and now forms volume i. of 'The Game-Birds of India, Burma and Ceylon,' rather an unfortunate change and apt to cause confusion with Hume and Marshall's well-known work.

The re-arranging of the letterpress under headings, and the substitution of several new plates by Mr. Grönvold, for indifferent ones in the first edition, are great improvements, but the same cannot be said of the way some of the old plates have been reproduced: that of the Ruddy Sheldrake for instance is poor in colour, while the bird flying in the background seems to have been deprived of its eye!

The second volume of the series contains rather a heterogeneous lot of birds, viz.: Snipes, Bustards and Sandgrouse. These Mr. Baker treats in a thorough manner and besides giving descriptions and distribution adds full details in regard to eggs and nesting, as well as information of interest to the sportsman such as accounts of shooting, record bags, etc.

Admirable black and white plates by Mr. Grönvold show the differences in the heads and bills, under wing-coverts and tails of the various species of Snipe, which used in conjunction with the useful key, ought to enable anyone to identify a bird he has shot.

In regard to the habits of the Great Bustard and the Eastern Little Bustard the author has of necessity had to draw on European works, since the former is of very rare occurrence in India and the latter, though a regular visitor, has not been much written about. Of the remaining Bustards, more especially the Bengal Florican, Sypheotis bengalensis, complete accounts have been given and we are surprised to find that apparently the chick of that species does not appear to be known.

In spite of his having no personal experience of Sandgrouse in their native haunts, Mr. Baker has produced very readable articles on the different species, though we cannot altogether agree with his systematic treatment of the different forms. In reference to the distribution of *Pterocles* orientalis we should like to point out that the Saiar Mts. are not in the extreme south of Palestine but in Turkestan.

A systematic index at the beginning of each volume or a detailed list of contents should be added in a new edition, since at present it is impossible to find out what species are mentioned in the volume without hunting through the index at the end.

It is unfortunate that a little more attention has not been paid to the synonymy and that the type localities, curiously enough omitted from most of the species described from India, while the dates of all original descriptions have not been given.

Both to the working oruithologist and sportsman in India these two volumes should be very useful, and we shall look forward to the concluding volumes of the series.

Bangs on Chinese and Burmese Birds.

[The birds of the American Museum of Natural History's Asiatic Zoological Expedition of 1916-1917. By Outram Bangs. Bull. Amer. Mus. N. H. xliv. 1921, pp. 575-612.]

An expedition under the leadership of Mr. Roy C. Andrews ser. xi.—vol. iv. 2A

and Mr. E. Heller was organized by the American Museum of Natural History during the years 1916-1917. Explorations were made in western Yunnan and the contiguous parts of Burma and also in Fokien in southern China. An interesting account of the expedition will be found in a volume, 'Camps and Trails in China,' by Mr. Andrews. published at New York in 1918. The primary object of the expedition was the collection of mammals, but a fair series of birds were obtained and are here listed. In the Yunnan list Mr. Bangs has made use of and followed Lord Rothschild's recent paper (Nov. Zool. xxviii. 1921, pp. 14-67). The list contains some taxonomic notes, but apparently Mr. Andrews made no field-observations which would certainly have added interest to the paper. New forms described are: - Pericrocotus yvetta, Turdus auritus conquisitus, and Megalurus palustris andrewsi, all from Yunnan or the Burma-Yunnan border; while a new name, Rhipidura flubellifera placabilis, is suggested to take the place of R. f. kempi Math. & Iredale from New Zealand 1913, nec R. rufifrons kempi Math, 1912!

Bannerman on the Canary Islands.

[The Canary Islands, their History, Natural History, and Scenery: an account of an ornithologist's camping trips in the archipelago. By David A. Bannerman, M.B.E., etc., etc. Pp. xvi+365; 3 col. pls., 4 maps, and many photographs. London (Gurney & Jackson), 1922. 8vo.]

All readers of this Journal are familiar with Mr. Bannerman's work on the birds of the Canary Island group. Now he has made an appeal to a wider audience by the publication of this attractive volume, in which he has combined his previous researches with a good deal of new matter. That he is amply fitted for his task is evidenced by the fact that he has made ten different visits to the group and has explored all the islands except Palma and Hierro in the extreme west.

The first chapter is devoted to an account of the discovery and early history of the archipelago, which appears to have been known to Carthaginians and Phænicians long before the Christian era. In the dark ages all knowledge of the Fortunate Islands appears to have been lost until early in the fourteenth century, when the Portuguese and the Spaniards began their voyages of discovery. Other chapters follow on the physical characteristics and geological history of the group, and we are glad to notice that Mr. Bannerman approves of the orthodox theory of their origin that they are of volcanic origin and have never been joined to the African Continent or formed part of the fabled Atlantis.

The second and third parts of the volume are devoted to the author's personal explorations and adventures in the various islands, and show him to be a traveller of the best type—always keen, always good tempered, often in very trying circumstances, and always observant, not only of the birds which were assiduously collected, but also of the other animals and plants. Finally an appendix contains a complete list of the Canarian birds, 217 in number.

The illustrations include three coloured plates of Canarian Titmice and Chaffinches, which are reprinted from those which appeared in 'The Ibis,' and a very large number of photographs, nearly all of them taken by Mr. Bannerman himself and beautifully reproduced for this work. The book is well printed on good paper and is a credit to the publishers, and we hope that it will meet with all the success it deserves. It will certainly be of the greatest interest to all visitors or residents in the Canaries, while no ornithologist should neglect the perusal of its fascinating pages.

Beehe on the Pheasants.

[A monograph of the Pheasants. By William Beebe. Vol. iii, pp. xvi+204; col. pls. xlv-lxviii; photogr. 40-60; maps xi-xiv. London (Witherby for the New York Zool. Soc.), February 1922. 4to.]

The third volume of Mr. Beebe's magnificent work on the Pheasants is now before us and fully sustains the standard set in the two previous ones. The present volume deals with four genera, all closely allied to the familiar "Bird of Colchis." These are *Pucrasia* containing the Koklass' of the Himalaya and China, *Cutreus* containing the Cheer confined to the Himalaya, Phasianus the true Pheasants, and Syrmaticus the Long-tailed Pheasants. So far as the first two of these genera are concerned there is no important change in the usually accepted taxonomy. As regards Phasianus Mr. Beebe considers that the genus should be restricted to two species only, P. colchicus and its numerous subspecies, and P. versicolor of Japan. Of P. colchicus he admits twenty-three subspecies as against Hartert's thirty, ranging from the shores of the Black Sea to Manchuria and Formosa, and he draws attention to the way in which these forms all grade into one another, so that mutation appears to have played but little part in their origin. There can be no doubt that the true Pheasants are a plastic group easily modified by their surroundings, and that they are also individually plastic, so that, even as Mr. Beebe remarks, within the space of two rice-fields of moderate size it is possible to shoot in a single morning three or four Pheasants which would, if obtained in distinct localities, have been considered distinct races. The last genus, Syrmaticus, has hitherto been restricted to Reeves' Pheasant: Mr. Beebe has withdrawn Scommerring's from Phasianus, and Elliot's, Mrs. Hume's, and the Mikado from Calophasis and placed them all together in this genus. He finds, notwithstanding the diversity of the plumage of the males, that they agree in a number of points, especially in the elongated central rectrices and the absence of the disintegrated rump-feathers so characteristic of true Pheasants: while the females have a good many similar characters, and show undoubted signs of a common origin. This rearrangement seems very satisfactory, and will probably be accepted by future writers.

It is, however, in the observations which Mr. Beebe was able to make himself during his memorable journey through Asia that the greatest interest will be taken. Under the caption "The Bird in its Haunts," he lets himself go in vivid word-pictures of the various homes of wild pheasants—the paddy-fields and reed-beds of central China, the flowery gorges of the Yangtse, the deodar forests of the

Himalaya, the dense bamboo jungles of the Burmese hills, and the smiling landscape of Japan were all visited, and are here described with their characteristic pheasants.

The coloured plates are reproduced from paintings by various artists. Those of the true Pheasants, eleven in number, are by the late Major H. Jones; they are in a rather different style to the others, the backgrounds and surroundings being conventional and the birds themselves occupying most of the plate; they are wonderfully exact reproductions of the colouring of the birds, but not perhaps so pleasing in an artistic sense as some of the others. To Mr. Lodge has fallen the four Koklass and four Longtailed Pheasants, and we would give the palm to the Common Koklass which forms the frontispiece; the Mikado does not seem to be nearly so successful. There are two plates, Cheer and Elliot's, by Mr. Fuertes, and one each from Mr. C. R. Knight, and Mr. E. Megargee-Reeves' and Sæmmerring's; while Mr. Grönvold contributes a plate of the young birds of Reeves' and Elliot's. The photogravures illustrating the homes and haunts are mostly from photographs by Mr. Beebe himself, but there are some by General Bailward, Mr. Dwight Huntington, and Mr. Douglas Carruthers of regions in central Asia not visited by Mr. Beebe. One of the most beautiful of the camera pictures is the home of the Japanese Copper Pheasant (S, sammerrings), showing Mt. Fuji rising from a lake in the foreground.

Our only regret is that the high price of this beautiful work will prevent it having the wide circulation which it deserves, and we shall look forward to seeing before very long the fourth and concluding volume.

Cherrie and Reichenberger on new South American Birds.

[Descriptions of proposed new birds from Brazil, Paraguay, and Argentina. By George K. Cherrie and Mrs. E. B. Reichenberger. Amer. Mus. Novit. New York, no. 27, Dec. 1921, pp. 1-6.]

This contains preliminary descriptions of new forms contained chiefly in the Roosevelt collection made by

the senior author in 1913-16. They are as follows:— Strix chacoensis, Ortalis canicollis pantanalensis, O. c. grisea, Nystactes tamatia interior, Nonnula ruficapilla pallida, Chloronerpes flavigula magnus, Furnarius rufus paraguayæ.

Chubb's Birds of British Guiana.

[The Birds of British Guiana, based on the collection of Frederick Vasavour McConnell. By Charles Chubb. Vol. ii. pp. xcvi+615; 8 photographic plates, 10 coloured plates, 214 text-figs. London (Quaritch), 1921. 8vo.]

The first volume of this work, containing the non-Passerine birds, was published in 1916 (see Ibis, 1916, p. 505). The second volume, completing the work and containing the description of the Passerine birds, is now before us, and is a worthy monument to the industry and skill of Mr. Charles Chubb and to the memory of the late Mr. F. V. McConnell, an enthusiastic observer and collector of British Guiana Birds.

The introduction contains an itinerary of over 70 pages of the second journey undertaken by Mr. McConnell to Roraima in 1898, in which he was again accompanied by Mr. J. J. Quelch, late of the Georgetown Museum. The itinerary was drawn up by Mr. Quelch and contains a lively account of the journey to Roraima, and also of the condition of the plateau which forms the top. The avifauna was insignificant, and apparently the only bird obtained there was a Song Sparrow, Brachyspiza macconnelli, the type of which was collected by Mr. McConnell himself in 1898. The itinerary is illustrated by two photographs of the summit-plateau and several more of the Indians whom they came across during the trip. The bulk of the volume is taken up with the detailed description of the species, 366 in number, all of which appear to have been most carefully drawn up. It is very noticeable how little field-work has been done in British Guiana. Breeding-season, nest, eggs, and habits are followed in a very large proportion of cases by "unknown" or "unrecorded." There is undoubtedly a great field for Mr. Beebe and his band of workers at his Tropical Research Station on the Mazaruni river, and we are pleased to see that Mr. Chubb has been able to avail himself of some of the information contained in the former's 'Tropical Wild Life' for the present volume.

During the course of his work on this volume Mr. Chubb has found it necessary to describe a number of new genera, species, and subspecies, a list of which is given in the introduction; these have nearly all been previously published in the Bulletin of the B. O. C. or in the 'Annals & Magazine of Natural History.' We notice, however, a few here described for the first time—Grallaria regulus roraima, Vireo roraima, and Pachysylvia thoracicus abariensis.

The ten coloured plates, as well as the very numerous text-figures, are all from the skilful brush of Mr. Grönvold and greatly embellish this most attractive work, and we can only conclude by congratulating Mr. Chubb on the completion of a most laborious and valuable work on the avifauna of our only South American colony, and Mrs. McConnell on the monument she has raised to the memory of her husband.

Gladstone on the Scottish Capercaillies.

[The last of the indigenous Scottish Capercaillies. By Hugh S. Gladstone. Scottish Nat. 1921, pp. 169-177; 2 figs.]

As is well known, the indigenous race of the Capercaillie in Scotland became extinct about 1770 and the bird was reintroduced from Sweden in 1837. It has been stated by Prof. Newton that no specimen of the old British race is known to exist; there are a pair in the British Museum which came from the Pennant collection which Mr. Ogilvie-Grant thought might be of Scottish origin, but there appears to be no positive proof. Mr. Gladstone in this paper draws attention to an old mounted male example now in the Hancock Museum at Newcastle-on-Tyne which he traces back to the collection of Marmaduke Tunstall (1743-1790)

of Wycliffe Hall, Yorkshire, the oft-quoted though anonymous author of the 'Ornithologia Britannica,' and which he believes, from the evidence he is able to produce, to be undoubtedly an example of the old indigenous race.

Grote on the birds of South-West Africa.

[Zur Ayıfauna des nördlichen Deutsch Südwestafrika. Von Hermann Grote. Journ. Ornith. 1922, pp. 39-49.]

Just before the war broke out Dr. F. Jaeger and Dr. Leo Waibel were engaged in a scientific and exploring expedition in the extreme north of what was then the German Colony of South-West Africa. Their work was interrupted by the war and they were unable to accomplish much, but a small collection of birds was secured, consisting of about forty species. These are now described by Dr. Grote, who has found several novelties among them, viz.: Eupodotis afroides etoschæ, Dendropicus guineensis stresemanni, Philetairus socius geminus, and Mirafra sabota waibeli.

Lönnberg on the food of the Buzzard.

[Bidrag till kännedomen om ormvråkens näringsvanor. Av Einar Lönnberg. Svensk Jägareförb. Tidskr. lix. 1921, pp. 257–263; 4 figs.]

This is a short paper dealing with the food-habits of the Buzzard (*Buteo b. buteo*) in Sweden. It is illustrated with four photographs of some curious plumage variations.

Mathews on Australian Birds.

[The Birds of Australia. By Gregory M. Mathews. Vol. ix. pts. 5, 6, pp. 193-436, pls. 425-436. London (Witherby), Dec. 1921, and Feb. 1922. 4to.]

In part 5 of Mr. Mathews's work we are concerned with seven most interesting species of terrestrial birds of the genera *Cinclosoma*, *Samuela*, *Drymodes*, *Pycnoptilus*, and *Hylacola*, which normally live on the ground, feed on insects or more rarely berries, and nest among the mallee or other scrub.

The interest evoked by them has caused their habits to be closely investigated, and in consequence we have now admirable articles on their life-histories from the pens of Capt. White, Messrs. Howe, Mattingley, Mellor, Ashby, Whitlock, Carter, Chandler, Macgillivray, and Dove, who have constantly made them the subjects of their studies, while the number of observers shows the attractiveness of the pursuit.

Samuela cinnamomea, separated in the 'Austral Avian Record' from the two races of Cinclosoma, is found to be akin to Ajax of New Guinea; it was originally sent to Gould by Sturt, who discovered it in the arid interior of the continent. Gould separated two species, Sharpe proposed a third, but these are now relegated to subspecific rank, though a little known form, S. alisteri, is quite distinct.

Less uncommon is another inland bird, the "Scrub Robin" (Drymodes brunneopygia). A new subspecies has turned up in western South Australia (D. intermedia), but the author's victoriæ proves to be a synonym of the type, and Sharpe's pallida belongs to the West Australian race. The nest is unmistakable, as it has a ring of little sticks or stout twigs on the outside, which line a depression in the soil.

Gould's superciliaris must be considered a second species, and possibly the Aru Island D. beccarii is a third; for this a new subspecies, adjacens, is propounded.

Of even more interest is the Pilot-bird (Pycnoptilus floccosus), supposed to announce the presence of the Lyrebird. Everyone should read Mr. Howe's account of his experiences with this species, which can hardly be abbreviated. Gould actually described it twice.

Hylacola pyrrhopygia (V. & II.) and H. cauta Gould are shown to be conspecific Ground Wrens, but may hold subspecific rank with five other races.

Part 6 starts with the Coachwhip-bird, the note of which must be heard to be believed, so like is it to the crack of a whip. Locally well known, it is one of the most peculiar

of Australian birds, and was figured in the Watling drawings, whence Latham described it as Muscicapa crepitans. But he had already named it Corvus olivaceus, or White-cheeked Crow, so the latter name is here shown to have priority. There are six subspecies, and a second species has been separated from south-west Australia which may be extinct, but it would not be right to be too certain of this, in view of its peculiar haunts. It may be remarked that the exact position of the Coachwhip-bird in our list is quite uncertain, but this may be said of several species given in the present instalment.

Again the reader must be asked to study the life-histories of the gregarious Babblers (Pomatorhinus and Morganornis), often called Cat-birds or Twelve Apostles, and learn of their curious stick nests—often used communally: one species is allotted to the former and two to the latter, with fifteen subspecies in all; but we are asked to note that Turdus frivolus (Latham ex Watling) is not synonymous with either. The "Field Wrens" come next, where the habits are once more a great consideration. Calamanthus montanellus of Milligan should perhaps be specifically separated from C. fuliginosus with a subspecies ashbyi, but p. 287 must be read to understand the whole position. Then Calamanthus campestris constitutes a new subgenus, Eremianthus, and finally we finish with four races of the Migratory Song-Lark (Cinclorhamphus).

Miller and Griscom on new Central American Birds.

[Descriptions of proposed new birds from Central America, with notes on other little-known forms. By W. DeW. Miller and L. Griscom. Amer. Mus. Novit. New York, no. 25, Dec. 1921, pp. 1-13.]

This paper contains preliminary descriptions of new forms collected by the authors in Nicaragua, as follows:—Ortalis cinereiceps saturatus, Creciscus ruberrimus, Gallinula chloropus centralis, Asturina plagiata micrus, Ictinia plumbea vagans, Aramides plumbeicollis pacificus.

Murphy on the Sea-birds of Peru.

[The Sea-coast and Islands of Peru. By Robert Cushman Murphy. Parts IV-VII. Brooklyn Museum Quarterly for 1921, pp, 1-28, 35-55, 91-105, 95-153.]

In these four articles in the Brooklyn Museum Quarterly Mr. Murphy concludes his account of his travels on the sea-coast of Peru, the first portion of which has already been noticed (Ibis, 1921, p. 329). The first article contains a very interesting account of the Chincha Islands as they were in 1869, when Dr. Lucas-then a young man, now the Director of the American Museum-visited them in the sailing-ship 'Lottie Warren' to obtain a cargo of guano for transport to London. In the first article Mr. Murphy concludes his account of the Chincha Islands; he afterwards visited one or two localities on the mainland, finally ending up at Callao. The very numerous photographs are excellent and give a wonderful idea of the abundance of the bird-life along the Peruvian coasts. Those of the Condors in flight are exceedingly interesting, and placed alongside one of an Albatros photographed in the south Atlantic exhibit a remarkable contrast in the relative length and breadth of the wings of these birds.

Murphy and Harper on the Diving Petrels.

[A review of the Diving Petrels. By Robert Cushman Murphy and Francis Harper. Bull. Amer. Mus. N. H. xliv. 1921, pp. 495-554.]

The Diving Petrels (Pelccanoididæ) form a very striking and very distinct family among the Tubinares and are confined to Antarctic and Subantarctic seas, though one species ranges north along the west coast of South America nearly to the equator. They have a curious resemblance to the Auks of the northern hemisphere, which, however, is probably due to convergence and similar external conditions and is of no phylogenetic significance.

Messrs. Murphy and Harper have been able to examine a large series in American Museums, chiefly from the

Brewster-Sanford collection from South American coasts, while the junior author has also had an opportunity of examining the material in the English and French Museums. With these advantages they have been able to make a thorough revision of all the described forms, which they propose to arrange in four subgenera and five species, one of which is divided up into five subspecies.

There are two problems which are difficult of solution. One of these is that a distinct species, *P. magellani*, is interposed geographically between two closely-allied subspecies, *P. urinatrix coppingeri* of southern Chili and *P. u. berard* of the Falkland Islands and the coast of Argentina, the first-named being found in the Magellan region between the other two. The other crux is the occurrence of *P. georgicus* on South Georgia as well as on Macquarie Island south of New Zealand.

In their final discussion the authors endeavour to explain these anomalies. The new names proposed are *Porthmornis* and *Pelagodyptes*, subgenera for *P. magellani* and *P. georgicus* respectively. The new races had been already named.

Oberholser on desert bird-life.

[Glimpses of desert bird-life in the Great Basin. By Harry Oberholser. Smithsonian Report for 1919, 1921, pp. 355-366.]

In this little essay Mr. Oberholser sketches in a brief and attractive manner the characteristic bird-life of the great tract of country west of the Rocky Mountains and east of the coast range of California, the greater part of which is a continuous desert from south-east Oregon to the mouth of the Colorado river, where it pours its waters into the head of the Gulf of Mexico. Notwithstanding its desert characters, there are a good many lakes, mostly salt, the chief being the Great Salt Lake of Utah, which harbour many water-birds. These and the more strictly desert forms, such as Horned Larks, Road-runners, Gambel's Partridges, and other less familiar birds, are all pleasantly described.

Phillips on breeding hybrids.

[A further report on species crosses in Birds. By J. C. Phillips. 'Genetics,' Baltimore, vi. 1921, pp. 366-383; 5 figs.]

This paper deals with some further experiments in cross-breeding Ducks and Pheasants, and is to be taken as a final report on these investigations, which were reported on in a previous paper (Journ. Experimental Zoology, xviii. 1915, p. 69). The general conclusion arrived at is that when the crossings are between closely related species inheritance follows the Mendelian rules, but when the species are genetically or widely apart morphologically great difficulties arise, crosses are difficult to obtain, and when obtained are often themselves infertile; moreover, plumage patterns and colours are affected by so many factors that the majority of segregates are more or less intermediate. The paper is illustrated with photographs of some of the variations obtained, and is of considerable interest to students of heredity.

Schaanning on a new race of Blackcock.

[Bjerkreim-Orren. Lyrurus tetrix bjerkreimensis, subsp. nov. Med 8 plancher, 3 tekstfiguren og 1 kartriss, av H. Tho. L. Schaanning; pp. 1-25, 1921.]

This little pamphlet, which has no indication of being an extract from any journal, contains an account of a curious race or variation of the Blackcock. It would best be described as a semi-albino. The cock retains the blue-black head and neck of the ordinary type, and the underparts are also black, though in some species they are brownish. The back, wings, and tail are white with a varying amount of brown or black speckling. The hens are also pale and semi-albinistic.

Mr. Schaanning has drawn up a list of forty-eight examples of this type, and has himself examined about thirty-two of them. Far the greater number have been obtained in the southern portion of Norway between Stavanger and Kristiania, while six have occurred in Oesterdalen to the north of Kristiania and one in Sweden in the Kalmar district on the Baltic some 300 miles away. It appears that the variation coexists side by side with the normal type, and would therefore be more correctly regarded as a sport or mutation and can hardly be considered a subspecies in the ordinary sense in which that term is now used.

Mr. Schaanning has, however, thought it best to give this variation a trinomial name derived from the district in which it occurs. He regards it as an incipient species, which is increasing and gradually becoming the predominant and prevailing type of the Blackcock in this particular region.

There are a number of interesting questions which arise in regard to this curious variety, and some of them are discussed at length in Mr. Schaanning's paper, to which the reader must refer for further information. The paper is very well illustrated with coloured and other photographs of the various specimens.

Sheels on Ulster Birds.

[Rare birds in Ulster recorded by Mr. Alfred Sheels. Reprinted from the "Northern Whig," Belfast, Jan. 1922.]

A list of the occurrences of rare birds in the neighbourhood of Belfast such as Golden Oriole, American Black-billed Cuckoo, Snowy Owl, American Bittern, Wilson's Petrel, etc., etc., by Mr. Alfred Sheels, a well-known Belfast taxidermist.

Todd on the Tyrannidæ.

[Studies in the Tyrannidæ. I. A revision of the genus *Pipromorpha*. By W. E. Clyde Todd. Proc. Biol. Soc. Washington, vol. 34, Dec. 1921, pp. 173-192.]

A careful revision of the South American genus of Tyrant-birds, *Pipromorpha*, with key and full synonymy. Four species, divisible into eleven races, are recognized.

Two of these, Pipromorpha macconelli amazona from the Lower Amazon valley and P. o'eugina pacifica from western Ecuador, are described as novelties.

Wetmore on Birds' temperature.

[A study of the body temperature of Birds. By Alexander Wetmorė. Smithsonian Miscell. Collect. vol. 72, no. 12, pp. 1-52, 1921.]

For some years past Mr. Wetmore has been making observations on the temperature of birds whenever an opportunity occurred, and he has now published a complete record of his observations on over 300 species, to which he has added notes on some further 200 species from available literature. He has therefore a good basis of fact from which to deduce results. As is well known, the body temperature of birds is higher than that of man, varying from about 100° F. to 110° F. in exceptional circumstances. It is interesting to find that there is a marked diurnal variation in temperature in the case of small birds, often as much as 6° or 7°, the highest temperature being in the middle of the day, the lowest at night; but in Owls, whose activity is chiefly nocturnal, the reverse is the case. In the case of nestlings, those species which are altricial show a much lower average temperature than adults, and are undoubtedly much dependent on their parents for warmth. It has been found, however, that the temperature of such birds may be reduced to 97° without death resulting. Mr. Wetmore suggests that the air-sacs, the physiological function of which has been a moot point for many years, may be of use for regulating the temperature of birds in the absence of sweat-glands, and he brings forward several cogent arguments in favour of this hypothesis. Finally he points out that birds which are generally considered lowly organized, such as Grebes, Herons, and Pelicans, have a distinctly lower temperature than Pigeons, Woodpeckers, and Passeres: this is well brought out in one of the tables of the average temperature of families of birds. This is an important paper and well worthy of attention.

Witherby on the Western Mediterranean Shearwater.

[On the British taken examples of the "Levantine" Shearwater. By H. F. Witherby. Brit. Bds. xv. 1921, pp. 151–153.]

Dr. Lowe has recently shown that the Shearwater inhabiting the western half of the Mediterranean is subspecifically distinct from the well-known Puffinus puffinus yelkouan, and he has named it P. p. mauretanicus. Mr. Witherby has therefore examined twelve of the twenty-eight recorded examples of the Levantine Shearwater, taken on the coasts of the British Islands, chiefly along the Yorkshire coast, in September. The twelve examined are all undoubtedly of the new race, and five others are clearly of this form from the descriptions given. It seems, therefore, that the Levantine Shearwater must be removed from the British list and its place taken by the Mauritanian subspecies, the breeding place of which is not known up to the present day.

Auk.

[The Auk. A Quarterly Journal of Ornithology. Vol. xxxviii. for 1921; 4 nos.]

'The Auk' for last year has suffered considerable delay in publication owing to a printers' strike; the July number was not published till 5 October, and the October number did not reach us till January. The number of articles is considerable, and we can do little more than mention the titles of some of the more important. Of faunal papers dealing with North America we find field-observations in the Quebec Province by Mr. H. Mousley, in Connecticut by Dr. L. B. B shop, in Florida by Mr. A. H. Howell, in Arkansas by Mr. C. J. Hunt, and in Texas by Dr. T. G. Pearson; and among studies of individual birds we note Mr. A. O. Cross on the Dicksissel (Spiza americana), Mr. F. H. Lewis on the Philadelphia Vireo, Mr. H. W. Wright on the Waxwing and the Mocking-bird in New England, and some reminiscences of the Passenger Pigeon in Iowa in 1872-76 by Mr. F. Bond. Mr. C. S. Arthur has made a special study of the Skimmer (Rynchops nigra); he believes that the very curious bill is not used to collect insects when skimming along the surface of the water, but he does not bring forward any novel explanation of the use of this curiously shaped organ.

Among papers dealing with exotic avifaunas, Mr. E. L. Poole writes on the birds he observed when in France during his service there in 1918, Mr. W. R. Allen on the conditions of bird-life on Lake Poopo in Bolivia, south of Titicaca, Mr. Kirke Swann describes a collection of Accipitrine birds from Venezuela and proposes a new subspecies of Heterospizias, and Mr. Kuroda sends descriptions of seven new subspecies of Japanese Woodpeckers. Messrs. Miller and Griscom review the races of Ortalis vetula from Mexico and Central America and propose to recognize several new races, and Mr. J. L. Peters does the same for the West India species of Holoquiscalus.

Dr. L. B. Bishop believes that the Loon, or as we call it the Great Northern Diver, of the interior and western portions of North America can be distinguished by its slightly smaller size from the typical race. He proposes to call it *Gavia* (*Colymbus* of our nomenclature) *immer elasson*. The wings of the breeding males of the new race average 354 mm. against 388 mm. for the typical one.

Mr. Chapin has made a curious discovery that the inner primaries of nestling Woodpeckers are very much abbreviated, and make a sort of gap in the wing when spread out; these short quills are replaced by quills of normal length at the early post-juvenal moult. In some cases one, in other cases two, are affected, while in one or two genera examined (Sphyrapicus) the phenomenon did not occur. The only explanation suggested is that it may enable young birds brought up in a confined nesting-hole while being fed by their parents to raise their heads through one another's wings; a curious photograph of young Flickers being fed at the nesting-hole illustrating the account, seems to confirm this.

From Mr. L. M. Loomis is an article on the transequatorial migration of Petrels, and from Mr. F. C. Lincoln

and S. P. Baldwin some remarks on bird-banding; while a portrait and a sympathetic memoir by Mr. T. S. Palmer commemorates the services of the late William Dutcher to the cause of bird-conservation in the United States.

Avicultural Magazine.

[The Avicultural Magazine, being the Journal of the Avicultural Society for the study of Foreign and British Birds in freedom and captivity. Third Series. Vol. xi. 1920 and Vol. xii. 1921.]

It is some time since the Avicultural Magazine was noticed in these pages, and we have now two complete volumes before us. Dr. Renshaw, the editor, resigned in August 1920, and his place has since been taken by Messrs. Pocock and Seth-Smith.

In the 1920 volume is an interesting article by Mr. St. Quintin on his Manchurian Cranes, in which he suggests that a patch of dull reddish skin between the eye and the angle of the mouth, present in the male and absent in the female, probably constitutes a good sexual distinction. Other avicultural articles are by Mr. F. J. Hunter on the Scottish Zoological Park, by Mr. Pocock, Mr. Shore Baily, and Mr. Herbert Astley. Mr. Philip Gosse concludes his notes on the birds of the Balearic Islands, and Mr. Hopkinson writes on Gambian Rollers. Among the illustrations is a beautiful drawing of Lesson's Amazon by Mrs. Cook, and a coloured plate of a remarkable albino Bulbul, probably Molpastes hæmorrhous. We regret to notice the deaths of Miss R. Alderson and Dr. Lovell Keays, both enthusiastic aviculturists and valuable members of the Society.

In the 1921 volume Mr. St. Quintin writes on his White Asiatic Cranes and their need for animal or insect food, and there are many other avicultural articles from Mr. Amsler, Capt. Rattigan, Mr. Herbert Astley, Mr. Shore Baily, and Mr. Delacour; while Lord Tavistock continues his experiments of breeding exotic birds at liberty—not very successful as a rule, as in the case of the Passerine Parrotlet which may perhaps be a free translation of *Psittacula*

passerina, though the vernacular name used is unknown to us.

Miss Knobel suggests a most interesting method of sexing Parrots, as a rule a most difficult task. She finds that in the case of males the pelvic bones taper to a point and lie so close to one another that they are touching, whereas in the hen the pelvic bones are wide enough apart to allow an egg to pass. This difference can be easily made out in the living bird by carefully feeling it with the fingers in the neighbourhood of the pelvis. A good account of the habits of the Mallee Fowl, one of the mound-building Brush Turkeys of Australia (Leipoa occilata), comes from the pen of Mr. T. P. Bellchambers, and the September number has a fine coloured plate of the Long-tailed Roller (Coracias caudatus), reproduced by arrangement with the Société d'Acclimatation de France through the help of Mons. J. Delacour.

Bird-Lore.

[Bird-Lore: A bi-monthly Magazine devoted to the Study and Protection of Birds. Official organ of the Audubon Societies. Vol. xxii. for 1921; 6 nos.]

We have nothing quite like 'Bird-Lore' on this side of the Atlantic, and it seems a pity that the British Boyal Society for the Protection of Birds has not been able to attempt something of the kind. It is certainly the most attractive of all the popular magazines dealing with birds. The six numbers composing the volume for 1921 have each a coloured plate by Bruce Horsfall, Fuertes, or Major Allen Brooks, all consummate bird artists, and there are also numbers of very beautifully reproduced photographs. The January number is chiefly occupied with the annual Christmas census. There are 134 lists of birds noted by various contributors on or about Christmas day from all over the United States and Canada, while one observer sends in a list of 18 species and 313 individuals met with by him at Cambridge, England. As would naturally be

expected, it is in the mild climate of the Pacific coast that the largest returns are made; here three observers are able to record 96 species and 5596 individuals, but we notice that their observations were made from an automobile and that they covered about 30 miles.

We regret to see that several attempts have recently been made to get bills through Congress to make use of portions of the National Parks at Yosemite and Yellowstone for the purpose of building dams, power-houses, and factories, and to destroy the amenities and the wild and natural beauties of these priceless reservations. The Audubon Societies and their central organization are doing all they can to fight these proposals, and we can only wish them every success.

Another matter which is adversely affecting bird-life along the American coasts as well as our own is the increasing use of oil fuel by large ships and motor-boats; the oil-tanks are cleaned out and the oil spreads over a vast area, and is the cause of the death of countless sea-birds. We trust that some means may be found to mitigate this disastrous result of modern invention.

Mr. E. Thompson Seton contributes a second article on the question "Why do Birds bathe?" There seems to be no satisfactory answer covering all cases, though we should have supposed that one of the chief reasons was to rid themselves of external parasites. As a memorial to the late John Burroughs, the well-known writer on nature-study, it is proposed to acquire his cottage "Slabsides" and the little valley in which it stands, as a memorial, to be preserved as a place of pilgrimage for all lovers of nature. It is sad to learn that Gilbert White's home at Selborne, where he died in 1793, is closed to the public and cannot now be visited.

Most of the articles in 'Bird-Lore' are naturally of only local interest, but we would draw attention to the very useful Seasonal Reports from all parts of the United States which are to be found in each number.

Bird Notes.

[Bird Notes: The Journal of the Foreign Bird Club. Edited by Wesley T. Page. Ser. 3. Vol. iv. for 1921; 12 nos.]

The last completed volume of 'Bird Notes' contains many articles of interest to Aviculturists, though we regret to notice that the contributors are very few in number, the greater part of the volume being due to the energy of Mr. Page the Editor and to Mr. Shore Baily. The former has made many journeys to visit the aviaries of various members, such as the Duchess of Wellington, Mrs. Burgess, and Capt. Rattigan, and has reported on these; he also contributes a number of shorter articles on his experiences with Pittas, Cape Doves, Prince Lucian Conures, and Tanagers. Mr. Shore Baily, also an enthusiastic and successful breeder, writes on his successes and otherwise in breeding Waders, Senegal Coursers, Grenadier Weavers, Picui Doves, and many other birds. His account of the habits of the Senegal Pie (Cryptorhina afra) seem of special interest. as it is a bird which is but rarely imported alive. The other principal contributor is the Marquis of Tavistock, whose chief object appears to be to get foreign birds to breed at liberty; Cordon Bleus (Estrilda angolensis) and Budgerigars (Melopsittacus undulatus) do not seem to take to our fickle climate very readily, but such experiments, when successful, are not always attended by pleasant results, as witness the disastrous acclimatization of the Little Owl.

There are no coloured plates in this volume, but there is a charming drawing by Mrs. A. M. Cook from life of a Blue-tailed Pitta (Eucichla cyanura) and a characteristic plate in black and white of Levaillant's Barbet, Trachyphonus cafer, by the late Mr. H. Goodchild, besides plenty of photographs.

Bombay Journal.

[The Journal of the Bombay Natural History Society. Vol. xxvii. nos. 1-4, 1920-1.]

The last volume of the Bombay Journal forms a stout

volume of nearly a thousand pages and contains much of interest in the matter of ornithology. Mr. Stuart Baker continues his leisurely survey of the Indian Game-birds, and each of the numbers has an article prefaced by a fine coloured plate; these represent Galloperdix bicalcarata, Francolinus f. melanotus, and Arboricola r. rufigularis. Mr. Baker has also commenced his Check-list of the Birds of the Indian Empire, which will be the foundation of the new edition of Oates & Blanford, and also we hope of the Systema Avium Indicarum. The three present instalments deal with the Passerine families. The classification is that of Oates with certain small modifications. The species and subspecies are serially numbered and the corresponding number of the 'Fauna' given; the original reference, typelocality, and a line on the distribution follow. We observe that a comma is placed between the specific and the author's name: this is not the usual practice now and is specially mentioned as undesirable in the International Code. We also notice that a good many birds are included which can hardly be said to range into the Indian Empire, as for instance the two species of Podoces (p. 233) and Parus cyanus tianschanicus (p. 234), but the list will undoubtedly be of the greatest use to all working Indian ornithologists.

Among other ornithological papers Mr. H. Whistler has some further notes on Simla birds containing nine additional species previously unobserved; he also contributes some notes on the Nightjars of the Punjab. Mr. C. H. Donald has completed his account of the Birds of Prey of the Punjab, which contains many devices and suggestions for recognizing these birds when on the wing. Mr. F. Ludlow has some nesting notes from Ladak and the Tso-Morari Lake in Tibet, and Capt. R. W. G. Hingston a list of the birds of Dharmsala in the northern Himalaya with interesting notes on vertical distribution and altitudinal migration between 4000 ft. and 15,000 ft. A skin of the Arabian Ostrich obtained by Sir H. Wilson from a Sheikh in central

Arabia has been presented to the Museum at Bombay, and forms the subject of an interesting note by Mr. S. H. Prater. Finally, there is a long and important article on the birds of northern and western Persia by Mr. P. A. Buxton, based on collections made by himself and also by Major R. E. Cheesman in 1918 and 1919. This paper has a good map showing the localities visited.

All those interested in the Egret question should read the extract from the 'Daily Gazette' of Karachi by Mr. G. Birch on p. 944, from which it seems that an industry comparable to the Ostrich industry is undoubtedly growing up in Sind of keeping Egrets for their plumes.

Bull. Essex County Ornithological Club.

[Bulletin of the Essex County Ornithological Club of Massachusetts for 1921. Publ. at Salem, Mass., U.S.A.]

The annual bulletin of this Massachusetts Bird-club is mostly occupied by matters of local interest in regard to the avifauna of New England. The first article by Mr. G. M. Allen deals with records of the Wild Turkey in New England. This fine bird, which, however, is not the origin of our domestic breed, is still to be met with in Virginia and the southern States, and probably ranged northwards as far as the State of Maine. It, however, appears to have become extinct in the New England States in the "forties" of the last century. Mr. J. C. Phillips, who has for twenty years kept an accurate record of the ducks and other waterfowl shot by him at Wenham Lake in Massachusetts, has drawn up a summary of the list showing that the Black Duck (Anas rubripes) is far the most common, while the Gadwall has only one record. Whether Loons and other Divingbirds make use of their wings to aid them when diving is discussed by Mr. E. H. Forbush. An example of the Sheld-Duck (Tadorna tadorna), obtained by Capt. Tobey in Ipswich Bay in October 1921, is the first recorded example from North America, and is figured in the frontispiece with a notice by Mr. A. P. Morse. Finally, the

annual excursion of the club up the Ipswich river, which took place on May 14-15, was a great success, and resulted in the recognition of 104 species including four previously unrecorded.

Fauna och Flora.

[Fauna och Flora. Populär Tidskrift för Biologi. Utgifven af Einar Lönnberg. Vol. for 1921; 6 parts.]

Dr. Lönnberg's magazine of natural history for last year contains a good number of articles on ornithology, from which we select the following titles. Mr. S. G. Blomqvist and E. Rosenberg have a long paper on the birds of the Nerike district of central Sweden, a region abounding in swamps and lakes. The birds are arranged ecologically according to the kind of vegetation which they most affect: for instance, Acrocephalus streperus, Circus æruginosus, Fulica atra and others are associated with the reed-beds (Arundo phragmitis), Circus cyaneus with the patches of willow along the shores of the lakes and seas. Dr. Lönnberg himself contributes several notes on birds; he records the occurrence of the Surf Scoter, Oidemia perspicillata, in the Baltic, and Larus argentatus cachinnans the Mediterranean Herring-Gull-a new record for Sweden, also taken on the Baltic coast. He also describes a curious albino Gull. which he identifies as Larus marinus, and has an interesting article on the biology of the Woodcock. From Mr. H. Zetterberg there is a list of the dates of the arrival in spring of various birds in southern Lapland, and as the records have been kept from 1906 to 1919 a good average date can be struck. Mr. I. Hilden has an article on the birds of Runo, a little island in the middle of the Gulf of Riga, and Mr. K. Kolthoff on the history of our knowledge of the birds of the island of Öland, whence Linnæus described a good many species. Mr. R. Palmgren records for the first time Gyps fulvus from Finland, and Graf Zedlitz discusses the races of the Jackdaw, Colaus monedula.

Gerfaut.

[Le Gerfaut. Revue belge d'Ornithologie. $11^{\rm c}$ Année, 1921; 4 fasc. in 3.]

One of the most interesting articles in the 'Gerfaut' for last year deals with the present condition of the Yser district, which was the scene of so much of the fighting during the The town of Dixmude, which has not apparently been restored, is now occupied by Passer montanus instead of P. domesticus; while other birds formerly not found there, such as the Linnet, are now abundant. Along the valley of the Yser itself were formerly rich and productive farms. Here, partly owing to the shell-holes and partly owing to the destruction of the dykes, the country has become a vast marsh overgrown by reeds and bulrushes, and has now been occupied by a number of water- and shorebirds. The Garganev, Shoveler, and Pochard, the Avocet and the Stilt all nest there, some of these being previously hardly known in Belgium. All this is related by M. C. Dupond in a most interesting communication.

M. A. Mercier has a note on the song of the "Hypolais contrepaisant," which presumably is our Icterine Warbler, and the "Rousserolle des marais," probably the Great Reed-Warbler; it would assist readers in other countries if the scientific names were added to these rather obscure French vernacular names.

In the second fascicule M. G. van Havre, with the assistance of a number of collaborators, has put together notes on the occurrences of the rarer birds in Belgium between May 1920 and April 1921; included in the list are examples of both Buteo buteo ruficaudus and B. b. vulpinus as well as other rare species. In a further article the same author discusses the occurrence of the two Spotted Eagles in Belgium. Some six instances are recorded; of these, M. van Havre assigns one to Aquila pomarina and two other recent ones to A. clanga, while the other three are uncertain. M. A. Galasse recounts his experiences in the Forest of Bouillon where he has met with a number of interesting birds breeding, including the Black and Red Kites,

the Goshawk, and the Buzzard. M. L. Coopman gives a similar list for the district of Fagnes, where the Scotch Grouse has been introduced and has become thoroughly acclimatized.

Irish Naturalist.

[The Irish Naturalist: A monthly Journal of General Irish Natural History. Vol. xxx. for 1921; 12 nos.]

We very much regret to learn that the 'Irish Naturalist' has reached a critical stage of its existence, and that unless it receives further support it will be impossible to continue its publication. It is to be hoped that means will be found to carry it on even at a loss. It is the only magazine of the sort dealing with Irish Natural History, and it would be a great misfortune if it became extinct.

The volume for 1921 contains very little ornithological matter, except two articles by Mr. J. P. Burkitt on the relation of song to the nesting-birds and some additional comments by Messrs. D. C. Campbell and N. H. Foster. Mr. Burkitt's theme appears to be that song is at its best before the actual mating period, and that mating seems to put a brake or stopper on song; and that we should have comparatively little song later in the year were it not for unmated males and the recrudescence of song when there are second broods. He also comments on the absence or scarcity of autumnal or winter song in the north of Ireland as compared with what is described as taking place in southeastern England during those months. The two articles are interesting reading and should be studied by all interested in Bird Psychology. The only other article on birds in the present volume is one by Mr. R. F. Ruttledge containing some notes on birds in Mayo and Galway.

Ornithologische Monatsberichte.

[Ornithologische Monatsberichte, herausgegeben von Prof. Dr. Ant. Reichenow. 29 Jahrgang for 1921; 6 double numbers.]

This is the last volume of the 'Ornithologische Monatsberichte' to be edited by the founder, Dr. Reichenow.

It will be conducted in future by Dr. Stresemann, who has also succeeded to Dr. Reichenow in the keepership of the bird-collection of the Berlin Museum. In the space at our disposal it is only possible to briefly mention the titles of some of the articles of more general interest. Dr. A. Laubmann writes on the distribution and breeding-habits of the Reed-Warbler in the Algäu district of Bavaria, and Dr. J. Gengler discusses the forms of the European Bullfinch. Father Schmitz has some notes on the birds of the Lake of Galilee in Palestine which include Pelicans and Flamingos. A report from Mr. S. Thienemann on the bird-watching station at Rossitten announces the occurrence of a Rock-Thrush (Monticola saxatilis), a new bird for East Prussia. Mr. H. Stadler writes on the song of Phylloscopus bonelli and P. sibilatrix, and Mr. E. P. Tratz on the occurrence of some rare birds in the Austrian Alps including Turdus atrogularis, Ciconia nigra, and Phalacrocorax pygmæus. Dr. Stresemann has a careful and detailed account of the moult of the wing-feathers in the Kingfishers, and Mr. H. Grote has a note on a very dark form of the Hoopoe from Upper Burma, but he does not name it, as it may be the Upupa nigricans of Horsfield and Moore. In other notes he describes Eremomela pusilla tessmanni and Pentholæa albifrons reichenowi from the interior of Cameroon and Erythropygia quadrivirgata rovumæ from the Rovuma valley in Tanganyika Territory as new subspecies, and Graf Zedlitz revises the races of Parisoma subcaruleum, adding a new race P. s. ansorgei from Angola.

Revue Française d'Ornithologie.

[Revue Française d'Ornithologie, Scientifique et Pratique. 13º Année, nos. 141-152 for 1921.]

Our honorary member, M. A. Menegaux, has now completed the thirteenth year of his editorship of the French Review of Ornithology, and we may perhaps venture to congratulate him on the able way in which he has managed to carry on his work through so many difficult years. We will briefly mention here some of the more important articles

in the last year's volume. M. J. Berlioz reviews a collection of birds made by Drs. Gromier and Lepetit in Kenya Colony and Uganda in 1910 and 1911; in some cases field and taxonomic notes are added. Other papers dealing with African birds are a short note by M. Menegaux himself on the birds of Dakar, in Senegal, and descriptions of two new subspecies from Togoland from the pen of Dr. Millet-Horsin-Phalacrocorax africanus menegauxi and Halcyon torquatus pontyi. M. A. Labitte has some interesting observations on the birds of the devastated regions of France, especially in the Department of Ardennes to the north of the Argonne Forest. He does not find so much alteration in the avifauna of these districts as he had expected. The same author contributes some notes on the nesting-habits of the Buzzard in the same region, where it is fairly numerous, and states that he believes that, when disturbed, the parents carry off their nestlings from the nest to a place of safety some distance off. Mr. L. Coopman, writing in a subsequent number, states that he has observed the same habits in the case of the Long-eared Owl. From Dr. A. Rochon-Duvigneaud we have an essay on the large Birds-of-Prey which are met with in the gorges of the Tarn on the slopes of the Cevennes; here are to be found in fair numbers Gyps fulvus, Neophron percnopterus, Aquila chrysaëtus, and A. belisarius. Lastly, we notice Mr. Jourdain has contributed an interesting account of the birds of the celebrated oak-forest of Mamara, in Morocco, which he visited in company with Capt. Congreve in April 1920; and M. Menegaux has published a translation of Capt. Lynes's paper on the birds of the Middle Atlas, which appeared in 'The Ibis' of the previous year.

Scottish Naturalist.

[The Scottish Naturalist: A Magazine devoted to Zoology. Vol. for 1921; nos. 109-120]

We regret to learn from the first number of the 'Scottish Naturalist' of last year that Dr. Eagle Clarke has withdrawn

from his post as one of the Editors-in-chief of the magazine, and that his name now takes a more modest position among the assistant Editors. His place has been taken by Dr. James Ritchie, the Assistant-Keeper of the Royal Scottish Museum.

Among the many articles in last year's volume we find one from the late Capt. S. E. Brock; it was found among his papers after his death, and though written before the war is published as it stands. It deals with Ecological Associations of Scottish birds, dividing them into eight groups in accordance with their breeding-grounds of a certain geological or botanical type such as Alpine, Moorland, Maritime, or Woodland Associations. From Misses Baxter and Rintoul we have their carefully compiled annual report on Scottish Ornithology for 1920, covering rare occurrences, migration notes, plumage variation, and changes of habit. They also contribute an article on the Pintail as a breeding bird in Scotland. This duck appears to have only established itself at Loch Leven on the mainland, though a few appear to nest every year in Orkney and Shetland.

Dr. Eagle Clarke announces the first occurrence of the Greater Snow-Goose (Chen nivalis) in British waters. It was shot on the river Dee in Kirkeudbrightshire and is now in the Royal Scottish Museum. The only previous record is of one obtained in co. Mayo, Ireland. In company with Surg.-Admiral Stenhouse, Dr. Eagle Clarke again visited Fair Isle in September last; they were fortunate enough to obtain two birds of exceptional interest—the eastern form of the Lesser Whitethroat (Sylvia curruca affinis) and an adult Yellow-legged Herring-Gull (Larus argentatus cachinnans). The Whitethroat is hitherto unrecorded from the British Islands and the Gull is new to the Scottish avifauna.

Mr. W. E. Collinge in a short article states that he has received of late several examples of the Common Tern (Sterna hirundo) killed between the months of October and

January, showing that it is not an exclusively summer visitor as hitherto generally believed. He also sends a plan for a bird-census for the British Isles on similar lines to one adopted in the United States by the late Prof. W. W. Cooke.

Contents of recent ornithological and other Journals.

In future we propose to give briefly the principal contents of the journals regularly received as they appear, and not to reserve the notices until the completion of each volume. We believe that it will be more useful to our readers to have the contents of these journals at once, instead of waiting till their freshness has worn off.

Anzeiger Ornith. Gesells. in Bayern, no. 4, Mch. 1921, no. 5, Dec. 1921.

- Stresemann, E. Corrections in the nomenclature of some Oriental birds.
- Hellmayr, C. E. Description of 12 new subspecies of South American birds.
- Stresemann, E. Description of 11 new species and subspecies of birds from northern New Guinea and New Britain (Neupommern).
- Grote, H. Description of five new subspecies of African birds from the Chad region and interior of Cameroon.
- Hellmayr, C. E. Two new Brazilian birds.

6 Auk, vol. xxxix. no. 1, Jan. 1922.

- Chapman, F. M. Eulogy on the late Dr. J. A. Allen, with a portrait.
- Michael, C. W., and Michael, Enid. Notes on the habits of the Harlequin Duck, with some fine photographs of the birds swimming in a stream in the Yosemite valley, California.
- Whittle, C. L. Migration and concentration of the Myrtle Warbler on the coast of South Carolina, near Charleston.